

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



UNITED STATES PATENT AND TRADEMARK OFFICE

AK

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/782,375	02/12/2001	Jos Timmermans	AEI-172-B	9750

7590 11/06/2003
Andrew R. Basile
Young & Basile, P.C.
3001 West Big Beaver Road, Suite 624
Troy, MI 48084

EXAMINER

TRAN, CHUC

ART UNIT	PAPER NUMBER
----------	--------------

2821

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/782,375

Applicant(s)

TIMMERMANS ET AL.

Examiner

Chuc D Tran

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-12, 14, 15, 17 and 19-27 is/are rejected.
- 7) ☒ Claim(s) 7, 13, 16 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

Art Unit: 2821

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-4, 11-13 and 21 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

2. The indicated allowability of claims 5-7, 9-10 and 14-20 are withdrawn in view of the newly discovered reference(s) to Nishihara et al (USP. 6,325,651). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 2, 5, 14, 22, 25 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishihara et al (USP. 6,325,651).

Regarding claim 2, Nishihara et al disclose a light emitting device comprising:

- a bulb portion (12), a pair of end caps (14) be coupled to a fluorescent lamp socket (2) (Fig. 11);

- a plurality of light emitting diodes (15) disposed inside the bulb portion, wherein the light emitting diodes in electrical communication with the pair of end caps (14) for illuminating in response to electrical current received from the power supply circuit (Col. 13, Line 28).

Art Unit: 2821

Regarding claims 5 and 14, Nishihara et al disclose a light emitting device comprising:

- a plurality light emitting diodes (15) disposed inside the bulb portion, wherein the light emitting diodes in electrical communication with the pair of end caps (14) for illuminating in response to electrical current delivery by the fluorescent light fixture (Fig. 11) (Col. 13, Line 28); wherein

- the bulb portion (12) is annular (Fig. 6).

Regarding claims 22 and 25 and 27, Nishihara et al disclose a light emitting device comprising:

- an elongated cylindrical transparent envelope (Col. 15, Line 55) (Fig. 6);
- a base cap (14), a first and a second prong (24) (Fig. 15) are adapted to electrically communicate with a fluorescent light socket (2) (Fig.15) (Col. 14, Line 62); and
- light emitting diodes in electrical communication with the base caps (14), wherein on terminal of the LED device is electrical communication with the first and the second prong terminal (Fig. 15) (Col. 14, line 62); wherein
- the base cap (14) is connected to the AC source (Col. 23, line 11).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2821

6. Claims 1, 4, 6, 9-12, 15-17, 19-21, 23, 24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishihara et al (USP. 6,325,651) in view of Atchinson et al (USP. 6,371,631).

Regarding claims 1, 4, 6, 9-12, 17, 19-21, 23, and 24, Nishihara et al disclose a light device for illumination by a power supply circuit comprising a clear glass bulb portion (12) (Col. 15, Line 49), a pair of end caps (14) are to be mounted in a fluorescent light tube socket (2) in response to electrical current received from the power supply circuit (Col. 14, Line 63) (Fig. 11). However, Nishihara et al is silent on the limitation of the plurality of light emitting diodes is mounted at a 90 degree on only one side of the circuit board wherein the plurality of light emitting diodes is a white LED. Atchinson et al teach the plurality of light emitting diodes (32) is mounted at a 90 degree on only one side of the circuit board (37) (Fig. 2) wherein the plurality of light emitting diodes is a white LED (Col. 6, Line 42) (Col. 8, Line 15). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nishihara et al by using the plurality of light emitting diodes is mounted at a 90 degree on only one side of the circuit board wherein the plurality of light emitting diodes is a white LED as taught by Atchinson et al. The ordinary artisan would have been motivated to modify Nishihara et al in the manner described above for the light emitting device to be maintained electrically connected.

Regarding claims 15, and 26, Nishihara et al disclose a light emitting device as set forth in the claims except a rectifier for converting an alternating current supply to the LED. Atchinson et al teach the rectifier for converting an alternating current supply to the LED (Col. 8, Line 35). Thus, it would have been obvious to one of ordinary skill in the art at the time the

Art Unit: 2821

invention was made to modify Nishihara et al by using the rectifier for converting an alternating current supply to the LED as taught by Atchinson et al. The ordinary artisan would have been motivated to modify Nishihara et al in the manner described above for providing a low voltage range from about 3 to about 30 volts (Col. 8, Line 37).

Allowable Subject Matter

7. Claims 3, 7, 13, 16, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to appreciate the advantage offered by a light emitting device with the following distinctive features such as set by all of the claims. In particular, the art of record fails to teach or fairly suggest constructing the light emitting diodes banks is mounted at an angular off-set from the circuit board to include a pulse width modulating circuit for receiving the direct current signal and supplying a resulting modulated signal to the LED, wherein the pair of end cap is an electrical bi-pin connector posses all of the distinctive features such as defined by claims 3, 7, 13, 15, and 18 to make the circuit can be adjusted in order to maintain power consumption.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuc D Tran whose telephone number is (703)306-5984. The examiner can normally be reached on M-F Flex hours.


Art Unit: 2821

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (703)308-4856. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

TC

October 24, 2003


Don Wong
Supervisory Patent Examiner
Technology Center 2800